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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,524	07/29/2003	Aldrich N.K. Lau	9584-039-999	6868
20583	7590	01/28/2008	EXAMINER	
JONES DAY			OLSEN, KAJ K	
222 EAST 41ST ST			ART UNIT	PAPER NUMBER
NEW YORK, NY 10017			1795	
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			01/28/2008	PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

10/629,524

Applicant(s)

LAU, ALDRICH N.K.

Examiner

Kaj K. Olsen

Art Unit

1795

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 08 November 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 24-26, 28, 29 and 31-53 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 24-26, 28, 29 and 31-53 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)  
Paper No(s)/Mail Date 11-8-2007.

- 4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claims 24-26, 28, 29, and 31-53 are rejected under 35 U.S.C. 102(a) as being anticipated by WO 2002/00746 (hereafter “WO ‘746”) which corresponds to Viovy et al (US 2004/0101970). All paragraph numbers herein refer to Viovy.

3. In the previous office action, the previous examiner rejected claims 24-26, 28, 29, and 31-51 as being anticipated by the teaching of WO ‘746. See paragraph 3 from the 6/8/2007 office action. Applicant has traversed this rejection with a detailed discussion of a number of sections of Viovy, in particular Example 2, and summarizes that Viovy copolymerizes, not grafts, the desired selection from one of his synthesized macromonomers with another monomer to form the “backbone” of his comb. The examiner is entirely confused by this point and its significance. As the previous examiner set forth, WO ‘746 was being particularly relied on for its embodiment described in paragraph 0071 and Example 4. In particular, Example 4 is clearly drawn to a PAM-PDMA-1 copolymer having an acrylamide backbone with PDMA grafts. See

paragraph 0155. Hence, the acrylamide backbone reads on the defined M1 of the claim with R1-R4 being H, R5 being other acrylamide units of the polymer, and A1 being O. Similarly, the PDMA reads on M2 with R1-R3 being H, R4-R5 being a CH<sub>3</sub> alkyl unit, and A1 being O. Furthermore, this M1 backbone and M2 side chain are grafted together (paragraphs 0071 and 0155). In addition, paragraph 0071 states that the PDMA could be utilized as the backbone (i.e. M1) with acrylamide as the grafted side segment (i.e. M2), which would appear to be the same material listed on p. 5, ll. 27-29 of the instant invention. Applicant does not appear to have addressed these particular embodiments and it is entirely unclear the significance of whether the side branches are significantly shorter than the backbone or how PNIPAM is synthesized, etc.

4. With respect to new claims 52 and 53, WO '746 constructs the polymer of example 4 with 0.7 g of PDMA (the M2 unit) and 2.8 g of acrylamide (the M1 unit). This results in an M2/M1 weight ratio of 0.25, which is at least 0.1.

#### ***Response to Arguments***

5. Applicant's arguments concerning the use of WO '746 were not persuasive for the reasons set forth in the body of the rejection above. Applicant's arguments concerning the use of Tan were persuasive and the examiner is withdrawing this rejection.

#### ***Conclusion***

6. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kaj Olsen whose telephone number is (571) 272-1344. The examiner can normally be reached on Monday through Friday from 8:00 A.M. to 4:30 P.M..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nam Nguyen, can be reached on 571-272-1342. The fax phone number for the organization where this application or proceeding is assigned is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

AU 1795  
January 23, 2008

  
KAJ K. OLSEN  
PRIMARY EXAMINER